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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,750	03/19/2004	Jeanne Kraye Pitz	TI-36763	7677
23494	7590	07/23/2007		
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			EXAMINER MAI, TAN V	
			ART UNIT 2193	PAPER NUMBER
			NOTIFICATION DATE 07/23/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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mn

Office Action Summary	Application No. 10/804,750	Applicant(s) PITZ ET AL.	
	Examiner Tan V. Mai	Art Unit 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

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1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims recite a method / apparatus for performing a mathematical function. It is unclear the system is implemented by software, general hardware (e.g., computer) or specific physical structures. It is noted that applicants' specification, page 6, first complete paragraph, indicates the "[m]apping system 14 can be implemented in hardware, software, or a combination of hardware and software".

"[t]o satisfy section 101 requirements, the claim must be for a practical application of the Sec. 101 judicial exception, which can be identified in various ways:

- . The claimed invention "transforms" an article or physical object to a different state or thing.
- . The claimed invention otherwise produces a useful, concrete and tangible result,..."

See "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" OG Date: 22 November 2005.

In order for claims to be statutory, claims must include a practical application with a concrete, useful, and tangible result. However, claims 1-25 merely disclose elements / steps of performing mathematical function without disclosing a **practical application with a concrete, useful, and tangible result, as they are pre-emptive in any application**. Therefore, claims 1-25 are directed to non-statutory subject matter.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 17 and 23 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Normile et al.

Normile et al teach, e.g., see Fig. 2(a), the claimed combination elements. They are: PN generator (22) and Mapping Table (20). Also, see col. 2, lines 58-62 and col. 4, lines 9-20.

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4. Claims 1, 17 and 23 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Blumenthal et al.

Blumenthal et al teach, e.g., see paragraph [0008], especial lines 14-24; paragraphs [0015] & [0056] and claims 7 & 9, the claimed combination elements.

5. Claims 1, 17 and 23 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Klein et al.

Klein et al teach, e.g., see Abstract, paragraphs [0021] and claims 1, 12-13 & 25, the claimed combination elements.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-10, 18-20 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Normile et al.

Normile et al. have been discussed in paragraph #3 above. Dependent claims 2-10, 18-20 and 24-25 add the details of PN generator. These features are old and/or obvious to a person having ordinary skill in the art. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to design the

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claimed invention according to Normile et al.'s teachings because the device includes PN generator and mapping system as claimed.

8. Claims 2-10, 18-20 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blumenthal et al.

Blumenthal et al. have been discussed in paragraph #4 above. Dependent claims 2-10, 18-20 and 24-25 add the details of PN generator. These features are old and/or obvious to a person having ordinary skill in the art. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to design the claimed invention according to Blumenthal et al.'s teachings because the device includes PN generator and mapping system as claimed.

9. Claims 2-10, 18-20 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein et al.

Klein et al. have been discussed in paragraph #5 above. Dependent claims 2-10, 18-20 and 24-25 add the details of PN generator. These features are old and/or obvious to a person having ordinary skill in the art. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to design the claimed invention according to Klein et al.'s teachings because the device includes PN generator and mapping system as claimed.

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10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cited references are art of interest.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan V. Mai whose telephone number is (571) 272-3726. The examiner can normally be reached on Mon-Wed and Fri. from 9:30am to 2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An, can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is:

Official (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.



Tan V. Mai
Primary Examiner